# Class, Gender and Rhoticity

# Class, Gender and Rhoticity:
## *The Social Stratification of Postvocalic /r/ in Edinburgh Speech*

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### Introduction

While Scottish English is considered a rhotic variety, recent research has demonstrated increasing derhoticisation in Edinburgh and Glasgow. This trend is socially stratified, with the highest rates of derhoticisation occurring among speakers of lower socioeconomic status (e.g. Lawson et al. 2014: 53).

Most work on the social stratification of linguistic variation has defined socioeconomic status in terms of a dichotomy between Working Class (WC) and Middle Class (MC) speakers. We address the lack of research on speakers whose socioeconomic status has changed over the course of their life.

### Research Question

Given differences in rhoticity between Working Class and Middle Class speakers in Edinburgh, what is the rate and type of rhoticity for speakers born Working Class but who became Middle Class by retirement?

### Participants (N=16)

**WC:** School-leavers from age 16 or younger; work in blue-collar jobs, parents in similar jobs.
**MC:** University graduates; attended private schools; white-collar jobs; parents in similar jobs.
**NMC:** Either first in their family to go to university or in white-collar jobs; parents in blue-collar jobs.

Table 1: Participants

| Participant | Gender | Social Class | Age |
|---|---|---|---|
| John | Male | MC | 61 |
| David | Male | MC | 62 |
| James | Male | MC | 66 |
| Emily | Female | MC | 61 |
| Sarah | Female | MC | 58 |
| Laura | Female | MC | 63 |
| Michael | Male | NMC | 63 |
| Fergus | Male | NMC | 69 |
| Bill | Male | NMC | 66 |
| Jennifer | Female | NMC | 63 |
| Anne | Female | NMC | 59 |
| Caroline | Female | NMC | 67 |
| Martin | Male | WC | 61 |
| Stephen | Male | WC | 57 |
| Emma | Female | WC | 63 |
| Fiona | Female | WC | 63 |

### Procedure

- Six 1-hour sessions, Nov 2013 to Jan 2014.
- Same-sex same-SEC groups of 2-3 speakers.
- Sessions led by 1st author; F, MC Edinburgh.
- Talk prompted by a written list of topics: childhood, education, family, work and life in Edinburgh.
- Interpersonal dynamics similar across groups; most had met previously or had mutual friends.

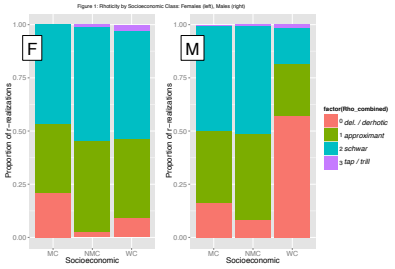
### Auditory Coding (N = 5212)

See Table 2 and the notes for it, below.

### Excluded Contexts

- /r/ followed by a vowel
- /r/ followed by a word-initial /h/ that is deleted
- /r/ followed by a word-initial /r/
- vowel + /r/ voicing duration < 30ms

### Descriptive Results




### Model Factors (lme4)

*Dependent variable:*
- rhoticity (binary, taps & trills eliminated)

*Linguistic factors:*
- syllable stress
- word final vs. word internal
- phrase final vs. phrase internal
- preceding vowel
- manner of the following segment
- lexical frequency (BNC spoken)

*Social Factors:*
- social class & gender

*Random Intercepts:*
- word & participant

### Model Results

*All linguistic factors either eliminated or not convergent.*

Table 3: Best-fit Model Estimates

| | Estimate | StdError | z-value | p |
|---|---|---|---|---|
| (Intercept) | 1.4167 | 0.1245 | 11.382 | < 0.001 |
| SocioeconomicNMC | 2.3524 | 0.2608 | 9.02 | < 0.001 |
| SocioeconomicWC | 1.0278 | 0.1948 | 5.276 | < 0.001 |
| GenderMale | 0.4686 | 0.1622 | 2.889 | 0.00386 |
| SocioeconomicNMC:GenderMale | -1.5784 | 0.3172 | -4.975 | < 0.001 |
| SocioeconomicWC:GenderMale | -3.3507 | 0.2639 | -12.695 | < 0.001 |

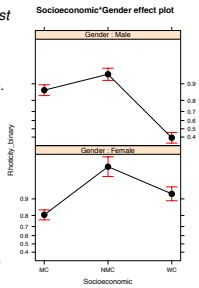
### Summary

**NMC** speakers produce the *most* rhoticity of all the social groups.

**WC men** produce the *least* amount of rhoticity of any group.

The biggest **gender difference** is among the WC speakers.

Since MC speakers, especially women, have the 2nd-highest rates of non-rhoticity, we think that the '0' category conflates two differently indexed variants: **RP non-rhotic & WC derhotic.**




### Analysis

NMC speakers and WC men are particularly distinctive (and opposed) in their production of postvocalic /r/.

*Is the NMC pattern surprising? Should we expect them to sound more like WC speakers?*
**No:** class attainment seems to be a stronger predictor than the social class of one's parents.
- teens' orientations to local social structures are more predictive than parents' class (e.g., Eckert 1989; 2000)
- teens' class aspirations are predictive prior to their entrance into the workforce (e.g., Wagner 2012)
- adults' occupation, alone, is an effective predictor of class-based variation (e.g., Macaulay 1977; Horvath 1985)
- class might be better defined according to consumption than production (e.g., Mallinson 2007)

*Do NMC speakers show higher rates of rhoticity than MC speakers because of hypercorrection?*
**No:** rather than 'linguistic insecurity', consider language ideologies (e.g. Yaeger-Dror 1992; Milroy 1999; Preston 2013)
- E.g., as exemplified in American geek girl speech (Bucholtz 2008); 'superstandard English' contrasts ideologically with both standard and non-standard varieties.
- In urban Scotland, superstandard speech has been long associated with Morningside- & Kelvinside Englishes (Johnston 1985); both have been described as having exceptionally high rates of rhoticity.
- Our claim: stylisation, not hypercorrection.

*What about the derhotic, tapped, and trilled variants among WC men?*
- MC speakers use the variants situated in the middle of the rhotic continuum.
- WC speakers, especially men, index their class identity through divergence from these central MC variants.
- This divergence occurs in both directions along the continuum, resulting in the use of both strongly rhotic variants (taps and trills) and the least rhotic variants (vocalised, derhotic).
- Our claim: stylisation towards a (masculine) Scottish Working Class style

### Conclusions

The results support previous findings of stronger and more frequent /r/ production among MC speakers than WC speakers (Lawson et al. 2014: 53). Our contribution is that speakers from the NMC group demonstrated the highest rates of rhoticity in the sample. This echoes Labov's (1966a, 1972) observations of rhoticity in New York City English, specifically his (1966b) analysis of upwardly mobile speakers who were born WC and became MC later in life.

We also observe much higher rates of non-rhoticity among WC men than WC women, but no significant gender difference within the MC or NMC groups. WC men also employ a small but significantly higher proportion of tap and trill variants than do the other social groups. The results indicate complexity in the patterning of post-vocalic /r/ with socioeconomic status, where speakers can draw on a range of (non-)rhotic variants to index different social identities.

**Table 2:** Auditory coding categories of postvocalic /r/ along a continuum (adapted from Lawson et al. 2014: 63). We used all six initially, but based on confidence, collapsed them to:

**0=no/de** **1=approx** **2=schwar** **3=tap/trill**

We then converted the data for a binary analysis, comparing a relatively sparse set of non-rhotic/derhotic tokens (N=931) to rhotic ones (N=4230), excluding taps/trills (N=51).

| no /r/ | → derhoticised | → alveolar approximant | → retroflex approximant | → schwar | → tap | → trill |
|---|---|---|---|---|---|---|
| ø | [Vˢ] | [ɹ] | [ɻ] | [ɚ] | [ɾ] | [r] |

**Least rhotic** **Most rhotic**